

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

In re Application of	:	Customer Number: 53080
	:	
Tomohisa TENRA, et al.	:	Confirmation Number: 8367
	:	
Application No.: 10/537,298	:	Group Art Unit: 1794
	:	
Filed: June 02, 2005	:	Examiner: Alexander Thomas
	:	
For:		VACUUM HEAT INSULATOR AND ITS MANUFACTURING METHOD, AND BODY WARMER AND PERSONAL COMPUTER USING THE VACUUM HEAT INSULATOR

**REPLY BRIEF PURSUANT TO 37 C.F.R. § 41.41**

Mail Stop Appeal Brief - Patents  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

The following Remarks are respectfully submitted in response to new issues raised in the Examiner's Answer dated March 25, 2008, pursuant to 37 C.F.R. § 41.41.

**REMARKS**

The Examiner's interpretation of the claim recitation "the enveloping member is heated and pressed in a portion where said core member is present within the enveloping member, and at portions of said enveloping member where said core member is not present within the enveloping member," as allegedly being nothing more than a process limitation without adding any structurally distinguishing features to the claimed product which would distinguish it from Yasuaki JP 10-110,887, is without merit.

The claim distinguishes over Yasuaki as can be seen from Figure 1 of Yasuaki, in which core material 2 is bordered on each side by covering materials 3. However, Yasuaki does not disclose an arrangement in which portions of the heat seal layer where the core member is not present within the enveloping member are closely attached to each other and heated and fused so as to be along the core member shape at the border between the portion where the core member is present within the enveloping member and the portion where the core member is not present, as recited in claim 2. This is shown, for example in FIG. 8 of the present application, in which the enveloping members are heated and fused together so as to be along the shape of portion 36, where the core member is not present within the enveloping.

The Examiner asserts that Figures 1 and 2 of Yasuaki, show portions of the heat seal layer where the core material 2 is not present within the enveloping member, namely the areas between the core material pieces.

The Examiner appears to assert that Figures 1 and 2 of Yasuaki show an arrangement of a vacuum heat insulator in which the portions of the heat seal layer where the core member is not present within the enveloping member are heated and fused so as to be along the core member shape at the border between the portion where the core member is present within the enveloping member and the portion where the core member is not present.

Yasuaki describes that, "the covering material is thermally fused in portions between the core materials" and "covering material 3 is thermally adhered in the discontinuous portions of core material 2." (See page 19 of English translation document provided by USPTO on March 25, 2008). However, Yasuaki does not specifically describe how the portions between the core materials and the discontinuous portions of the core material are thermally fused. Also, at the time Yasuaki was filed, the following technique was not well known in the art,

namely the technique in which the portions of the heat seal layer *where the core member is not present* within the enveloping member are heated and fused to each other so as to be along the core member shape at the border between the portion where the core member is present within the enveloping member and the portion where the core member is not present.

In addition, Yasuaki describes having an independent vacuum part created by thermally fusing the covering material in portions between the core materials. The effect of this configuration is to obtain a vacuum heat insulation body in which lowered thermal conductivity of the vacuum, heat insulation body overall is controlled, even when the covering material ruptures and leaks due to external impact, etc. (See paragraph 46 on page 19 of English translation document provided by USPTO on March 25, 2008). However, such effect can be obtained when the space in which each core material is evacuated and sealed is partitioned by the heat seal parts where the portions of the heat seal layer where the core member is not present within the enveloping member are heated and fused each other, even though the width of the heat seal parts is smaller than that of the present application. Further, heating and fusing of the portions of the heat seal layer where the core member is not present within the enveloping member do not need to be performed at the border between the portion where the core member is present within the enveloping member and the portion where the core member is not present.

Thus, claim 2 is not obvious over Yasuaki.

On page 8 of the Examiner's answer, the Examiner reasons that because claim 8 does not require that the envelope be sealed over the entire cross-sectional extent of the through-hole, that the seal 24 in Motoyuki JP 08-303,686, meets the instant claim limitation of being over the through hole. The Examiner is incorrect in this assessment.

Claim 8 clearly defines that the heat seal layers are heated and fused *over* said through-holes and along the shape of said through-holes. One of ordinary skill in this art would not interpret the claim as describing anything less than full coverage of the through-holes by the seal layers.

The Examiner continues with the flawed rationale that the claims can be interpreted as allowing the envelope in the area of the through-holes in the core material to be cut or slit in order to form a through-hole for subsequent insertion of a tube. A person having ordinary skill in this art would not make such an inference from the claim as the claim describes an envelope with heat seal layers which are heated and fused over said through-holes and along the shape of said through-holes, not partially heated and fused over the through-holes. The teaching of Motoyuki of inserting a tube through a hole teaches away from heating and fusing a heat seal layer over the through holes as claimed.

Applicants submit that the rejection of claim 12 as allegedly being obvious over Yasuaki in view of Stroobants U.S. 6,322,743 and claim 19 as allegedly being obvious over Yasuaki, are without merit as Yasuaki fails to disclose or suggest an arrangement in which portions of the heat seal layer where the core member is not present within the enveloping member are closely attached to each other and heated and fused so as to be along the core member shape at the border between the portion where the core member is present within the enveloping member and the portion where the core member is not present.

In view of the above arguments and the Appeal Brief Appellants respectfully submit that the Examiner's rejections under 35 U.S.C. § 102 over Yasuaki, 35 U.S.C. § 103 over Yasuaki in view of Motoyuki and Yasuaki in view of Stroobants are not viable.

Accordingly, the Examiners application of the prior art combination is incorrect.

Appellants, therefore, respectfully solicit the Honorable Board to reverse the Examiner's rejections of claims 2, 11, 13, 14 and 18 as anticipated by Yasuaki; claims 8-10 as obvious over Yasuak and Motoyuki; claim 12 as obvious over Yasuaki in view of Strooband; and claim 19 as obvious as over Yasuaki.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,

McDERMOTT WILL & EMERY LLP

  
Michael E. Fogarty  
Registration No. 36,139

600 13<sup>th</sup> Street, N.W.  
Washington, DC 20005-3096  
Phone: 202.756.8000 MEF:MWE  
Facsimile: 202.756.8087  
**Date: May 27, 2008**

**Please recognize our Customer No. 53080  
as our correspondence address.**